



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,907	03/03/2000	Krishna Balachandran	Bal*9/LLUC-114H	5608
32205	7590	06/01/2004	EXAMINER	
PATTI & BRILL ONE NORTH LASALLE STREET 44TH FLOOR CHICAGO, IL 60602			JUNTIMA, NITTAYA	
			ART UNIT	PAPER NUMBER
			2663	16

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/517,907

Applicant(s)

BALACHANDRAN ET AL.

Examiner

Nittaya Juntima

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on September 8, 2003.
2. The objections to the drawings and specifications are withdrawn in view of applicant's amendment.
3. The indicated allowability claims 10-18 and 22 of paper no. 6 are presently withdrawn.
4. Claims 1-22 and 29 are now are rejected under 35 U.S.C. 112, second paragraph.
5. Claims 1-3, 6-16, 19-21, and 29-30 are now rejected under 35 U.S.C. 102(e).
6. Claims 4-5, 17-18, and 22-28 are presently rejected under 35 U.S.C. 103(a).

Oath/Declaration

7. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

(i) The oath or declaration is defective because: the claim benefit of a U.S. provisional application serial number 60/122,616 and a U.S. provisional application serial number 60/123,291 under 35 U.S.C §119(e) is not indicated in the oath/declaration filed on October 20, 2003.

(ii) Applicants (first, third, forth, fifth, and sixth inventors) have not given their post office addresses anywhere in the application papers as required by 37 CFR 1.33(a), which was in effect at the time of filing of the oath or declaration. A statement over applicants' signatures providing complete post office addresses is required.

Specification

8. The disclosure is objected to because of the following informalities:
- on pg. 2, line 8, "60/122.616" should be changed to "60/122,616."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 3, and claims 10 and 22, line 4, the limitation "dividing the channel time slots into sub-channel time slots" is vague and indefinite. It cannot be determined from the claim language as why a packet channel, i.e a PDCH, divided in channel time slots would be divided into sub-channel time slots, see specification pg. 9, ll 14-18 and pg. 21, ll 17-19. The office is treating this limitation as "dividing the packet channel into sub-channel time slots." The preamble and the specification on pg. 4 should also be changed accordingly.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2663

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. **Claims 1-3, 6-16, 19-21, and 29-30** are rejected under 35 U.S.C. 102(e) as being anticipated by Bilstrom et al. (USPN 5,910,949).

Per **claim 1**, Bilstrom et al. teach *dividing the packet channel into sub-channel time slots* (as shown in Fig. 7, a PDCH is divided into time slots), *defining a packet channel feed back field* (a PCF field) *associated with each sub-channel time slot* (the PEQ flag in the PCF field is used to assign the sub-channels of the RPDCH, col. 12, lines 39-44 and 66-67-col. 13, lines 1-4), and *forming a sub-channel feedback field in the packet channel feedback field to indicate acknowledgements* (R/N flag, PE flag, and PEQ flag in the PCF field are used to indicate acknowledgements, i.e. received/not received for burst transmitted from a particular MS and received by the system, on each sub-channel of the RPDCH when d6 and d5 bits of PEQ are 00 and 01, col. 12, lines 39-55 and col. 13, table 1), and *forming a sub-channel assignment field in the packet channel feedback field to indicate time slot assignments* (BRI flag in the PCF field is used to indicate time slot assignments, i.e. busy/reserved/idle, on each sub-channel of the RPDCH, col. 12, lines 39-42).

Art Unit: 2663

Per **claim 2**, Bilstrom et al. teach ***assigning an active mobile identity*** (the mobile station identity code) ***associated with an active mobile station*** (since the mobile station identity code is sent as part of the mobile station access attempt, therefore, it is inherent that the mobile station identity code must be assigned to the mobile station, col. 12, lines 49-55), and ***including the active mobile identity in the packet channel feedback field*** (PE, which is equal to the seven least significant bits of the mobile station identity code, is part of the PCF field, col. 12, lines 49-55).

Per **claim 3**, Bilstrom et al. teach that ***the assigned active mobile identity is used to identify an active mobile station to receive packet data signals*** (PE flag is used to identify a mobile station to receive the PCF field and its flags, col. 12, lines 49-55, Table 1, and Fig. 13, col. 22, lines 16-17, 21-28 and 53-60, see also col. 2, lines 49-64).

Per **claims 6 and 13**, Bilstrom et al. teach ***assigning a plurality of active mobile identities*** (it is inherent that a plurality of active mobile identification codes must be assigned to accommodate a number of mobile stations, col. 12, lines 49-55, see also col. 22, lines 9-16) ***and ones/a set of the active mobile identities are reserved for special functions*** (special functions are not defined, therefore, read on PE flags in the PCF field, col. 12, lines 49-55).

Per **claims 7 and 14**, Bilstrom et al. teach ***assigning a plurality of active mobile identities*** (a plurality of active mobile identification codes must be assigned to accommodate a number of mobile stations, col. 12, lines 49-55, see also col. 22, lines 9-16), and ***assigning a subset of the active mobile identities as mobile station identifiers*** (PE flags, each having the 7 least significant bits of the mobile station identity, are used as mobile station identifiers, col. 12, lines 49-55).

Art Unit: 2663

Per **claim 8**, Bilstrom et al. teach that *the assigned active mobile identity is used to indicate a time slot assignment for the active mobile station* (PE flag is set to 1, which is the mobile station identity code of MS 1, to indicate a time slot assignment, i.e. n+4, n+5, and n+6 on the uplink, for MS 1, Table 1 and Fig. 13 and col. 22, lines 16-41).

Per **claim 9**, Bilstrom et al. teach *transmitting packet data signals on an uplink over the packet channel based on the time slot assignments* (MS1 transmits bursts D1₂, D1₃, and D1₄ on the time slot assignments, i.e. n+4, n+5, and n+6, on the uplink over a full-rate PDCH, Table 1 and Fig. 13 and col. 22, lines 9-10 and 16-41).

Per **claim 10**, Bilstrom et al. teach *dividing the packet channel into sub-channel time slots* (as shown in Fig. 7, a PDCH is divided into time slots), *defining a packet channel feed back field* (a PCF field) *associated with each sub-channel time slot* (the PEQ flag in the PCF field is used to assign the sub-channels of the RPDCH, col. 12, lines 39-44 and 66-67-col. 13, lines 1-4), *indicating acknowledgements using the packet channel feedback field* (R/N flag and PE flag in PCF field are used to indicate acknowledgements, i.e. Received/Not received for burst transmitted from a particular MS and received by the system, col. 12, lines 39-55), *assigning an active mobile identity* (the mobile station identity code) *associated with an active mobile station* (since the mobile station identity code is sent as part of the mobile station access attempt, therefore, it is inherent that the mobile station identity code must be assigned to the mobile station, col. 12, lines 49-55), and *including the active mobile identity in the packet channel feedback field* (PE flag, which is equal to the seven least significant bits of the mobile station identity code, is part of the PCF field, col. 12, lines 49-55), *wherein the assigned active mobile identity is used to indicate a time slot assignment for the active mobile station* (PE flag is set to

Art Unit: 2663

1, which is the mobile station identity code of MS 1, to indicate a time slot assignment, i.e. $n+4$, $n+5$, and $n+6$ on the uplink, for MS 1, Table 1 and Fig. 13 and col. 22, lines 16-41), ***transmitting packet data signals on an uplink over the packet channel based on the time slot assignments*** (MS1 transmits bursts $D1_2$, $D1_3$, and $D1_4$ on the time slot assignment, i.e. $n+4$, $n+5$, and $n+6$, on the uplink over a full-rate PDCH, Table 1 and Fig. 13 and col. 22, lines 9-10 and 16-41), ***forming a sub-channel feedback field in the packet channel feedback field to indicate acknowledgements*** (R/N flag, PE flag, and PEQ flag in the PCF field are used to indicate acknowledgements, i.e. received/not received for burst transmitted from a particular MS and received by the system, on each sub-channel of the RPDCH when d6 and d5 bits of PEQ are 00 and 01, col. 12, lines 39-55 and col. 13, table 1), and ***forming a sub-channel assignment field in the packet channel feedback field to indicate time slot assignments*** (BRI flag in the PCF field is used to indicate time slot assignments, i.e. busy/reserved/idle, on each sub-channel of the RPDCH, col. 12, lines 39-42), ***the sub-channel assignment field being substantially independent of the sub-channel feedback field*** (BRI flag is substantially independent of R/N and PE flag when d6 and d5 bits of PEQ are 00 and 01, see col. 13, table 1).

Per **claim 11**, Bilstrom et al. teach that ***a format of the sub-channel feedback field depends on whether it is in response to a contention access or a reserved access*** (for more bursts, R/N and PEQ flags are different for a contention access and a reserved access, col. 15, lines 32-30, table 4, and col. 16, lines 54-67 and col. 17, lines 21-59, table 6, and col. 22, lines 16-28).

Per **claim 12**, Bilstrom et al. also teach that ***the sub-channel feedback field comprises an active mobile identity that indicates acknowledgement in response to a contention access*** (PE

Art Unit: 2663

flag in PCF field is used to indicate which MS transmitted the burst has had its initial burst correctly received by the BS in response to a contention access, col. 12, lines 47-55 and Fig. 13, col. 22, lines 9-18, 20-28).

Per **claim 15**, Bilstrom et al. further teach that *the sub-channel feedback field contains flags indicating acknowledgement and continued reservation on the sub-channel* (PCF field contains R/N flag, PE flag, and PEQ flag to indicate acknowledgement and continued reservation on the sub-channel, col. 12, lines 39-44, 47-55, col. 13, lines 19-24, Fig. 13, col. 22, lines 20-28, 37-41).

Per **claim 16**, Bilstrom et al. teach *setting the sub-channel feedback field to a special active mobile identity value* (a special active mobile identity is not defined, reads on a PE flag - seven least significant bits of the MS identity code) *to indicate a negative acknowledgement* (when R/N flag equals to "not received", PE flag identifying the MS whose burst was not received by the base station would also be sent along with R/N flag=not received in the PCF field to indicate negative acknowledgement, col. 12, lines 39-55 and col. 13, lines 27-43).

Per **claim 19**, Bilstrom et al. teach *a mobile station* (a mobile station) and *a base station* (the communication system, e.g. a base station), *transmitting from the mobile station a request to initiate packet data transmissions* (a request to initiate packet data transmissions is not defined, therefore, reads on the first burst of many more bursts) *to the base station based on the packet channel feedback field* (a mobile station sends the first burst of its access attempt using the corresponding RPDCH upon finding a FPDCH slot with a PCF field having BRI flag = Idle, col. 15, lines 28-30 and 38-39), *including a suggested active mobile identity value* (a suggested active mobile identity value is not defined, therefore, reads on a mobile station identity code) *in*

Art Unit: 2663

the request (a mobile station identity code is sent as part of the mobile station access attempt, col. 12, lines 49-55), and *awaiting an acknowledgement from the base station in the packet channel feedback field* (a combination of R/N and PE flags in the PCF field is sent from the base station to the mobile station, col. 15, lines 30-32 and Table 4, see also col. 12, lines 39-60).

Per **claim 20**, Bilstrom et al. teach *an acknowledgement* (PE field) *in the packet feedback field indicates acceptance of the suggested active mobile identity* (PE field in PCF match occurs, col. 15, lines 28-32 and 36-39, and Table 4).

Per **claim 21**, Bilstrom et al. further teach *if a negative acknowledgement* (no PE match with R/N = Received) *is received in the PCF field, waiting a time period* (a time period is not defined, therefore, reads on random delay with a granularity of 1 TDMA block) *before the mobile station makes another request* (col. 15, lines 32-36, and col. 14, lines 52-57, 64-67-col. 15, lines 1-8).

Per **claims 29 and 30**, Bilstrom et al. teach that *the sub-channel assignment field being substantially independent of the sub-channel feedback field* (BRI flag is substantially independent of R/N and PE flag when d6 and d5 bits of PEQ are 00 and 01, see col. 13, table 1).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2663

13. **Claims 26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilstrom et al. (USPN 5,910,949).

Per **claim 26**, Bilstrom et al. teach *a communication device* (a mobile station), *a packet channel* (a PDCH channel as shown in Fig. 7), *identifying acknowledgements* (R/N and PE flags) *and assignments* (BRI flag) *of time slots on the packet channel based on a packet channel feedback field* (a PCF field) (R/N, PE, and BRI flags in a PCF field are used to acknowledge and assign time slots for a PDCH, col. 12, lines 39-55), and *controlling access to the packet channel based on the acknowledgements and assignments* (col. 22, lines 39-46 and 53-60, and col. 23, lines 5-7), *the packet channel feedback field* (PCF field) *comprises a sub-channel field back field to indicate acknowledgements* (R/N and PE flags) and *a sub-channel assignment field to indicate slot assignments* (BRI flag) (col. 12, lines 39-55),

However, Bilstrom et al. fails to teach a sub-channel controller and a channel access manager.

It would have been obvious to one skilled in the art to incorporate a sub-channel controller and a channel access manager into the communication device of Bilstrom et al. for automatic execution of the functions as recited in claim 26 above.

Per **claim 27**, Bilstrom et al. teach *identifying acknowledgements based on the packet channel feedback field* (PCF field) *and an active mobile identity* (a mobile station identity code) *associated with the communication device* (a mobile station) (a mobile station MS1 is identified acknowledgements, i.e. R/N and PE (set to 1 = a mobile station identity code of MS1), col. 22, lines 9-10, 12-14, 16-28, 21-28, and 31-43, and Fig. 13, see also Table 1),

Art Unit: 2663

Per **claim 28**, Bilstrom et al. teach *the device is a mobile station* (a mobile station, MS1, Fig. 3, col. 22, lines 9-10, 12-14, 16-28, 21-28, and 31-43).

14. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilstrom et al. (USPN 5,910,949) in view of Hulthen et al. (USPN 6,073,016).

Per **claim 5**, Bilstrom et al. does not teach assigning the active mobile identity during a transaction initiation procedure in the system. However, Hulthen et al. teach *assigning the active mobile identity* (an identification code) *during a transaction* (a session) *initiation procedure in the system* (the system 50 as shown in Fig. 1, col. 4, lines 56-59) (col. 9, lines 51-58 and col. 11, lines 6-13, and Fig. 5A).

Given the teaching of Hulthen et al., it would have been obvious to one skilled in the art to include assigning the active mobile identity (an identification code) during a transaction (a session) initiation procedure in the system into the method of Bilstrom et al. to ensure a proper authorization for network access as taught by Hulthen et al. (col. 5, lines 46-50 and 53-58).

15. **Claims 4, 17-18 and 22-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilstrom et al. (USPN 5,910,949) in view of Lindskog et al. (USPN 6,597,680 B1).

Per **claims 17 and 18**, Bilstrom et al. teach *the sub-channel assignment field* (BRI flag in the PCF field is used to indicate time slot assignments, i.e. busy/reserved/idle, on each sub-channel of the RPDCH, col. 12, lines 39-42). However, Bilstrom et al. fail to teach setting the sub-channel assignment field to a special active mobile identity value to indicate contention and to an active mobile identity value to indicate time slot assignment.

Art Unit: 2663

Lindskog et al. teach *setting the sub-channel assignment field (BRI flag) to a special active mobile identity value to indicate contention* (a special active mobile identity value is not defined, reads on a sequence of 0's representing the idle status for contention access, col. 11, lines 64-col. 12, lines 1-4) and *to an active mobile identity value to indicate time slot assignment* (an active mobile identity value is not defined, reads on a sequence of 0's representing the idle status as time slot assignment, col. 11, lines 64-col. 12, lines 1-4).

Given the teaching of Lindskog et al., it would have been obvious to one skilled in the art to incorporate setting the sub-channel assignment field (BRI flag) to a special active mobile identity value to indicate contention and to an active mobile identity value to indicate time slot assignment into the teaching of Bilstrom et al. The suggestion/motivation to do so would have been to indicate the idle status to the mobile station that the next uplink slot is random access opportunity as taught by Lindskog et al. (col. 11, lines 66-67).

Per **claim 22**, Bilstrom et al. teach *dividing the packet channel into sub-channel time slots* (as shown in Fig. 7, a PDCH is divided into time slots), *defining a packet channel feedback field* (a PCF field) *associated with each sub-channel time slot* (the PEQ flag in the PCF field is used to assign the sub-channels of the RPDCH, col. 12, lines 39-44 and 66-67-col. 13, lines 1-4), *indicating acknowledgements using the packet channel feedback field* (R/N flag and PE flag in PCF field are used to indicate acknowledgements, i.e. Received/Not received for burst transmitted from a particular MS and received by the system, col. 12, lines 39-55), *transmitting from the mobile station a request to initiate packet data transmissions* (a request to initiate packet data transmissions is not defined, therefore, reads on the first burst of many more bursts) *to the base station based on the packet channel feedback field* (a mobile station sends the first

Art Unit: 2663

burst of its access attempt using the corresponding RPDCH upon finding a FPDCH slot with a PCF field having BRI flag = Idle, col. 15, lines 28-30 and 38-39), *including a suggested active mobile identity value* (a suggested active mobile identity value is not defined, therefore, reads on a mobile station identity code) *in the request* (a mobile station identity code is sent as part of the mobile station access attempt, col. 12, lines 49-55), and *awaiting an acknowledgement from the base station in the packet channel feedback field* (a combination of R/N and PE flags in the PCF field is sent from the base station to the mobile station, col. 15, lines 30-32 and Table 4, see also col. 12, lines 39-60).

However, Bilstrom et al. fail to teach that if a negative acknowledgement is received in the PCF field, waiting a time period, i.e. for an active identity assignment to the mobile station to be received from the base station, before the mobile station makes another request.

Lindskog et al. teach that *if a negative acknowledgement* (a NAK reads on mobile id denied, e.g. unmatched) *is received in the PCF field, waiting a time period, i.e. for an active identity assignment to the mobile station to be received from the base station, before the mobile station makes another request* (another request is not defined, reads on a continue frame) (a different temporary address is given in ARQ status to indicate that the mobile station may transmit a continue frame, col. 12, lines 4-20).

Given the teaching of Lindskog et al., it would have been obvious to one skilled in the art to include waiting a time period into the teaching of Bilstrom et al. such that if a negative acknowledgement is received in the PCF field, waiting a time period, i.e. for an active identity assignment to the mobile station to be received from the base station, before the mobile station makes another request as recited in the claim. The suggestion/motivation to do so would have

Art Unit: 2663

been to enable the mobile station to transmit in the next uplink following a receipt of an ARQ as taught by Lindskog et al. (col. 12, lines 14-20).

Per **claim 23**, Bilstrom et al. teach *creating sub-channel time slots associated with the time slotted packet channel* (as shown in Fig. 7, a PDCH is divided into time slots), *defining an active mobile identity with an active mobile station* (an active mobile identification code is used to define a mobile station, col. 12, lines 49-55), *identify acknowledgements using the active mobile identity* (PE flag set to the seven least significant bits of the mobile station identity code is used to identify a mobile station that its initial burst was received correctly, col. 12, lines 47-55), *transmitting from the mobile station a request to initiate packet data transmissions* (a request to initiate packet data transmissions is not defined, therefore, reads on the first burst of many more bursts) *to the base station based on the packet channel feedback field* (a mobile station sends the first burst of its access attempt using the corresponding RPDCH upon finding a FPDCH slot with a PCF field with BRI flag = Idle, col. 15, lines 28-30 and 38-39), *including the active mobile identity in the request* (a mobile station identity code is sent as part of the mobile station access attempt, col. 12, lines 49-55), and *awaiting an acknowledgement* (a combination of R/N and PE flags in the PCF field) *from the base station* (a combination of R/N and PE flags in the PCF field is sent from the base station to the mobile station, col. 15, lines 30-32 and Table 4, see also col. 12, lines 39-60).

However, Bilstrom et al. fail to teach that if a negative acknowledgement is received, waiting for an active identity assignment to the active mobile station to be received from the base station.

Art Unit: 2663

Lindskog et al. teach that *if a negative acknowledgement* (a NAK reads on mobile id denied, e.g. unmatched) *is received, waiting for an active identity assignment to the mobile station to be received from the base station* (another request is not defined, reads on a continue frame) (a different temporary address is given in ARQ status to indicate that the mobile station may transmit a continue frame, col. 12, lines 4-20).

Given the teaching of Lindskog et al., it would have been obvious to one skilled in the art to include waiting a time period into the teaching of Bilstrom et al. such that if a negative acknowledgement is received, waiting for an active identity assignment to the mobile station to be received from the base station as recited in the claim. The suggestion/motivation to do so would have been to enable the mobile station to transmit in the next uplink following a receipt of an ARQ as taught by Lindskog et al. (col. 12, lines 14-20).

Per **claim 24**, Bilstrom et al. fail to teach identifying assignments of sub-channel time slots based on the active mobile identity. However, Lindskog et al. teach *identifying assignments of sub-channel time slots based on the active mobile identity* (col. 12, lines 15-20).

Per **claims 4 and 25**, Bilstrom et al. fail to teach invalidating the active mobile identity after one transaction of packet data signals. However, Lindskog et al. teach *invalidating the active mobile identity after one transaction of packet data signals* (col. 12, lines 44-51).

Response to Arguments

16. The applicant's arguments with respect to claims 1-9, 19-21, and 23-28 have been considered but they are not persuasive.

a. In the remarks, re claims 1-21 and 26-30, the applicant argues that the applied

Art Unit: 2663

reference(s) fails to teach or suggest forming a sub-channel feedback field in the packet channel feedback field to indicate acknowledgements, and forming a sub-channel assignment field in the packet channel feedback field to indicate time slot assignments.

In response, after a careful study of the applied reference, Bilstrom et al. do teach *forming a sub-channel feedback field in the packet channel feedback field to indicate acknowledgements and forming a sub-channel assignment field in the packet channel feedback field to indicate time slot assignments* because there is no difference in a structure or function between (i) Bilstrom et al. R/N flag, PE flag, and PEQ flag in the PCF field which are used to indicate acknowledgements, (col. 12, lines 39-55 and col. 13, table 1) and a BRI flag in the PCF field which is used to indicate time slot assignments, i.e. busy/reserved/idle, on each sub-channel of the RPDCH (col. 12, lines 39-42) and (ii) the claimed sub-channel feedback field and sub-channel assignment field. Therefore, the rejection is maintained.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 703-306-4821. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
May 24, 2004

N

ANDY LEE
PATENT EXAMINER
